

LISTING OF THE CLAIMS:

The following is a complete listing of all the claims in the application, with an indication of the status of each:

- 1     1. (Currently amended) A distributed method for processing auction traffic using one or  
2     more servers at a plurality of nodes in a distributed processing system comprising the  
3     steps of:  
4         using a computer implemented current local winner determination method at each  
5     of the nodes to identify loser bids and candidate winning bids; and  
6         using a computer implemented current global winner determination method to  
7     determine from the candidate winning bids from each of the nodes a current set of  
8     winners.
- 1     2. (Original) The method of claim 1, wherein the auction is an open-cry auction.
- 1     3. (Previously presented) A distributed method for processing open-cry auction traffic  
2     using one or more servers at a plurality of nodes in a distributed processing system  
3     comprising the steps of:  
4         using a current local winner determination method at each of the nodes to identify  
5     loser bids and candidate winning bids, wherein the current local winner determination  
6     method comprises the steps of:  
7         (a) receiving a new bid( $v, q$ ) at a node, where  $v$  denotes the price per unit and  $q$   
8         denotes the quantity desired;  
9         (b) checking to see if the new bid ranks in the top  $\lfloor N/q \rfloor$  bids, in terms of price/unit  
10         bid value, amongst all the bids asking for quantity  $q$  whose information is  
11         available to this process, where  $N$  is a number of copies of a single item on  
12         sale and  $\lfloor x \rfloor$  stands for the greatest integer less than or equal to  $x$ ;

13 (c) taking the new bid along with the set of  $\lfloor N/q \rfloor$  bids that have been processed  
14 and determining a new set of top  $\lfloor N/q \rfloor$  bids;  
15 (d) determining if  $\text{bid}(v,q)$  is in the top  $\lfloor N/q \rfloor$  bids and, if it is not, declaring it a  
16 loser bid, but if so, declaring it a candidate bid; and  
17 using a current global winner determination method to determine from the  
18 candidate winning bids from each of the nodes a current set of winners.

1 4. (Original) The method of claim 3, further comprising the steps of:  
2 holding the candidate bid at the node for a time,  $\tau$ ; and  
3 if by time  $\tau$ , through an arrival of another bid, a candidate bid loses its position  
4 amongst the top  $\lfloor N/q \rfloor$  highest bids, declaring the bid a loser bid;  
5 otherwise, declaring the bid a winner candidate and making the bid accessible for  
6 further processing by the current global winner determination method.

1 5. (Currently amended) The method of claim 4, wherein the current global winner  
2 determination method comprises the steps of:  
3 receiving new candidate winning bid from a node  $\text{bid}(v,q)$ ;  
4 taking the candidate winning bid along with the set of all bids that have been  
5 processed and ~~determines~~ determining a new set of winners;  
6 determining whether the new candidate  $\text{bid}(v,q)$  is a winner or a loser; and  
7 notifying the bidder of  $\text{bid}(v,q)$  as to whether they are a winner or loser.

1 6. (Previously presented) A distributed method for processing open-cry auction traffic  
2 using one or more servers at a plurality of nodes in a distributed processing system  
3 comprising the steps of:  
4 using a current local winner determination method at each of the nodes to identify  
5 loser bids and candidate winning bids, wherein the current local winner determination  
6 method comprises the steps of:

- 7 (a) receiving a new bid( $v, q$ ) at a node, where  $v$  denotes the price per unit and  $q$   
8 denotes the quantity desired;  
9 (b) considering a set of bids using a set of pre-specified auction rules and selecting  
10 winners for auctioning  $N+x$  copies of the item on sale; and  
11 (c) determinating whether the bid( $v, q$ ) is a candidate winner bid; and  
12 using a current global winner determination method to determine from the  
13 candidate winning bids from each of the nodes a current set of winners.

- 1 7. (Currently amended) The method of claim 6, wherein the current global winner  
2 determination method comprises the steps of:  
3 receiving new candidate winning bid from a node bid( $v, q$ );  
4 taking the candidate winning bid along with the set of all bids that have been  
5 processed and ~~determines~~ determining a new set of winners;  
6 determining whether the new candidate bid( $v, q$ ) is a winner or a loser; and  
7 notifying the bidder of bid( $v, q$ ) as to whether they are a winner or loser.

- 1 8. (Original) The method of claim 1, wherein the auction is a descending auction.

- 1 9. (Previously presented) A distributed method for processing descending auction traffic  
2 using one or more servers at a plurality of nodes in a distributed processing system  
3 comprising the steps of:  
4 using a current local winner determination method at each of the nodes to identify  
5 loser bids and candidate winning bids, wherein the current local winner determination  
6 method comprises the steps of:  
7 (a) receiving a bid ( $q$ ) for processing, where  $q$  is the quantity desired at going  
8 price  $p$ ;  
9 (b) determinating whether the bid is in the first  $\lfloor R/q \rfloor$  bids, asking for quantity  $q$  at  
10 price  $p$ , where  $\lfloor x \rfloor$  stands for the greatest integer less than or equal to  $x$  and

11                     $R$  is a currently remaining quantity on auction;  
12            (c) if the bid is in the first  $\lfloor R/q \rfloor$  bids, asking for quantity  $q$  at the going price  $p$ ,  
13                    then declaring the bid a candidate winner bid; and  
14            (d) making the candidate winner bid available for further processing by the current  
15                    global winner determination method; and  
16            using a current global winner determination method to determine from the  
17            candidate winning bids from each of the nodes a current set of winners.

1        10. (Original) The method of claim 9, further comprising the steps of:  
2            giving bids processed by the method a time stamp of arrival; and  
3            determining whether the time stamp, if it exists on the bid, is greater than or equal  
4            to the time stamp of any bid, asking for quantity  $q$  at going price  $p$ , that has been  
5            processed by the method in the past.

1        11. (Previously presented) The method of claim 1, wherein bidders submit multi-item  
2            bids and the bids may be indivisible.